

Abstract of the Disclosure

A process for synthesizing metal borohydride especially sodium borohydride directly from borax by the use of proton H at room temperature and pressure. Said process comprising the steps of:

- Providing proton H by the use of metals or alloys that can form hydrides with hydrogen. In this case, the metals or alloys are the carriers of proton H
- Proton H also can be provided from hydrogen gas by the use of catalysts located on the surface of carriers.
- Making the proton H enters the lattice of boron oxides
- Removing the oxygen from the lattice of boron oxides by the use of the carriers.